ABSTRACT OF THE DISCLOSURE

The present invention is particularly, but not exclusively, useful for reducing wear of component parts of impact crushers caused by earth aggregate flows during operation of impact crushers. The present invention includes a stepped central feed cone that allows for cylindrical carbide rods to be press fit therein to reduce wear. The downward steps of the stepped cone urge material fed to the stepped cone outwardly to the table. The top surface of a first rod inserted into a first bore formed in the impeller housing extends a distance beyond the bottom of a second bore on the next step up. The first rod protects the housing material forming the second bore from being washed out by material flow. In one embodiment, the impeller shoes have a geometric shape that reduces excessive normal forces and accompanying high friction of the material against the shoe. The reduction in high friction significantly reduces the wear rate.